

Japanese Patent Laid-open No.2001-346715 A

Publication date : December 18, 2001

Applicants : MATSUSHITA SEIKO CO. LTD.

Title : Hand Dryer

Claims

3. The hand dryer according to claim 1 or 2, further comprising an air volume controller that can freely control wind speed at which wind is blown from an ejection port to a wind path of the nozzle and an air-volume-controller control unit that controls the air volume controller and that is provided to the controller.

4. The hand dryer according to one of claims 1 to 3, further comprising a nozzle extension/reduction mechanism by which, when the blowing nozzle that can be freely extended or reduced is reduced, a space in which hands are rubbed together is formed and a nozzle-extension/reduction-mechanism control unit that controls extension/reduction of the nozzle extension/reduction mechanism and that is provided to the controller.

[0030] (First Embodiment) As shown in Figs. 1 and 2, an almost concave hand drying chamber 2 is formed to be open to an upper front surface of a body 1 fixed to a wall surface 12. A space in which hands are rubbed together is formed in the hand drying chamber 2 without ejection ports being opposed to one another. The hand drying chamber 2 includes an ejection

port 7 including the ejection ports A7a, B7b, and C7c that are arranged in the periphery of inserted hands and a detecting unit including an infrared ray light-emitting unit 13a and an infrared ray light-receiving unit 13b. A drain port 8 is also arranged at the bottom of the hand drying chamber 2.

[0031] The body 1 includes a controller 10 that controls electric components and a blowing unit 3 that generates high-speed wind. The controller 10 includes a microcomputer 14, a heat-generating-unit control unit 15 that on/off controls a heat generating unit 5, and a blowing-unit controller 16 that variably and freely controls an amount of wind blown from the ejection port 7 and performs transmission or reception of signals between the controller 10 and the detecting unit. The blowing unit 3 is communicated with the ejection port 7 through a nozzle 6 including nozzles A6a and B6b. The heat generating unit 5 to heat wind is arranged in a wind path that is shared by the nozzle 6.

[0036] The ejection ports A7a, B7b, and C7c are not opposed to one another. Therefore, it is possible to prevent collision of wind blown from them or disturbance of air current.

[0037] The number of the ejection ports 7 is three in total in the embodiment. If the number of the ejection ports 7 is more than one, operation effects are the same though drying time is changed.

[0051] As shown in Figs. 11 to 13, a nozzle extension/reduction mechanism 20 is included by which the ejection port A7a can be freely inserted in or taken out of the hand drying chamber 2a by extending or reducing a wind path of the nozzle A6a. A controller 10c includes a

nozzle-extension/reduction-mechanism control unit 21 that controls extension/reduction of the nozzle extension/reduction mechanism 20 and the drain timer 17 including the microcomputer 14 in which a target time is set as draining and drying time.